

Herbarium of the University of Oregon, those collected by Peck are in the Herbarium of Willamette University.

This interesting plant is apparently most nearly related to *Cirsium scopulorum* (Greene) Cockerell and *C. Clokeyi* Blake, but differs from both in several well marked characters. It is a conspicuous species by reason of its very robust habit, yellowish green color, large heads and very copious yellow spines.

University of Oregon, Eugene,  
December 3, 1938.

IRA C. OTIS  
(1861-1938)

It is with sincere regret that we report the passing of Mr. Ira C. Otis, who ranked high as a discriminating, skillful and enthusiastic botanical collector, notably of the genus *Carex*. Mr. Otis was born in Wisconsin in 1861, and moved to the state of Washington in 1889, where he continued to reside, except for a few years spent in California, until his death in Seattle, November 2, 1938.

He attended the University of Minnesota, studying mathematics and surveying, and entered actively into the latter profession before attaining his degree. As a surveyor, he helped locate several important highways and railways in Washington.

His first hobby was the solving of mathematical "brain twisters," but several years ago, while living at Olympia, he began to take walks with a local amateur botanist. Soon he became so interested in plant science that his books on mathematics were permanently laid aside, and thenceforth his eager mind was ever alert for plants that were new or interesting to him. He bought all the manuals of northwest botany obtainable, including a copy of the rare "Flora of Northwest America" by Thomas Howell. His plant specimens are always well selected and so skillfully prepared that they often look like paintings.

Identification of material in a new country is always difficult and, in spite of the pioneer work of Howell, Gorman, Henderson, Flett, Suksdorf, and Piper, the task is still difficult in the Pacific Northwest. Mr. Otis, like any other enthusiastic amateur, groped about for help, and a glance at his botanical correspondence shows that he discovered—as have so many other amateurs—a real friend in Dr. William R. Maxon, Curator of the National Herbarium. Mr. Otis sent some ferns to Dr. Maxon to identify, including in the bundle specimens of *Carex* and a borage. The *Carex* specimens were promptly turned over to Mr. K. K. Mackenzie who was at that time earnestly at work on a treatment of that difficult genus for Abram's "Illustrated Flora of the Pacific States"; the borage was given to Professor C. V. Piper.

Mr. Mackenzie was greatly pleased with the *Carex* collection



PLATE 8. IRA C. OTIS

and wrote a personal letter to Mr. Otis asking him to continue collecting for him. To this request Mr. Otis replied: "I would be glad to send you a liberal supply of specimens of *Carex* as a means of getting them named. I believe it no disgrace, especially for an amateur, to hesitate to name the specimens of *Carex*."

This arrangement pleased Mr. Mackenzie very much, and he replied with the following advice, which is too good not to repeat for future collectors of that tough genus:

"*First*: do not collect immature or imperfect specimens unless there is some very special reason. Such material can usually be named, but it is always unsatisfactory to deal with.

"*Second*: collect full specimens. Very valuable characters are found in the rootstocks and lower part of the culms.

"*Third*: get a full series of all species seen in each locality visited. Do not be afraid of sending lots of specimens of the same species collected at different localities. The most valuable herbaria are those built up on this basis.

"*Fourth*: get a geological map of your state if you can. If you have both acid and limestone regions you will derive great pleasure in studying the very great differences in the floras of the two regions. In the East this is very well marked in the *Carex* flora, but we have very little data on the point as far as the West is concerned. Also make a special study of any natural fresh water ponds and open spruce bogs."

From that time on Mr. Otis took especial pains to collect *Carex* at every opportunity, and a glance at the splendidly prepared specimens suggests that he first measured each one by the "*Carex* yardstick" given above.

Although Mr. Otis discovered no new species in the genus *Carex*, his specimens were of invaluable help in clarifying poorly known species, and in extending ranges. He was the first botanist to find *Carex physocarpa* Presl and *C. livida* (Wahl.) Willd. in Washington and the first to find *C. stygia* Fries in the United States. All these species were found on the Olympic Peninsula, two in the Olympic Mountains proper, a range which particularly fascinated Mr. Otis. He hoped to spend his last years collecting in the little known heart of this region, but fate decreed otherwise by his sudden and untimely death.

The borage specimen, as mentioned before, was turned over to Professor C. V. Piper who, after study of additional material collected by Mr. Otis, recognized it as new to science and described it as *Lappula venusta* (Proc. Biol. Soc. Wash. 37: 93. 1924). Dr. Harold St. John later transferred the species to a segregate genus, and it is known today as *Hackelia venusta* (Res. Stud. Wash. State College 1: 104. 1929).

Mr. Otis had found it growing in granitic drifts by the snow sheds in Tumwater Canyon near Leavenworth in the Wenatchee Mountains. It is truly a remarkable plant, more closely resembling a large caespitose phlox than the "weedy" borages of the region. Mr. Otis received many requests for material of the newly described species and eventually had none left for his own herbarium. Dr. St. John, then at the State College of Washing-



ton, received at his own urgent request the last of these sheets. In 1932 the writer visited the type locality and collected a large number of duplicates which were later widely distributed; one of these was turned over to Mr. Otis. This was the beginning of a friendship that lasted until his death. Now that his entire herbarium of three thousand sheets has gone to the State College, it is to be hoped that the sheet collected by Mr. Otis will be placed with the main Otis collection.

During the location of the Olympic Loop Highway, Mr. Otis was stationed at the town of Forks and botanized as much as possible in his spare time, visiting Lake Ozette and neighboring parts of the Olympic Mountains. On these trips he found several plants not previously known to occur within the state. Among these are *Erythronium revolutum* Smith and *Plantago macrocarpa* Cham. & Schlecht.

On the Hoh River trail in western Jefferson County he collected grass specimens which Dr. St. John believed to represent an undescribed species of the genus *Glyceria*. No description was published, however, since Dr. St. John shortly after left the State College to accept a position at the University of Hawaii. The writer began exchanging specimens with Mr. Otis at about this time and acquired two sheets of the plant. Dr. A. S. Hitchcock was then working on the "Manual of Grasses" and one sheet of this material was sent to him. He promptly replied that it was undescribed and, accepting the writer's suggestion, duly published it as *Glyceria Otisii* (Amer. Journ. Bot. 21: 128. 1934).

All who knew Mr. Otis will agree that his method of doing things—arranging a plant for the press, mounting a specimen, writing a label, composing a letter—can be summed up neatly in the word "meticulous" in its broad and liberal meaning. It was a pleasure to talk with him, and especially to see the sparkle in his eye when he found the answer to some perplexing problem of identification. He was truly a man one does not forget.—J. WILLIAM THOMPSON, Cleveland High School, Seattle, Washington.

## REVIEWS

*The Leguminous Plants of Wisconsin.* By NORMAN C. FASSETT. Pp. viii + 157 with 24 plates and 97 text figures. Published by the University of Wisconsin Press. Madison. 1939. \$3.00.

This work is a detailed, profusely illustrated distributional and taxonomic study of the species of the family Leguminosae that occur in the state of Wisconsin. The discussion of each species is accompanied by a map of its known distribution. Separate keys prepared by the author are based upon flowers, fruits and seeds, and a key prepared by Cathrine Mose is based upon epidermal outgrowths. Illustrations are by Richard I. Evans.

From the distribution pattern of the various species the author